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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/683,760	10/10/2003	Hao Bi	CS23797RA	5055
20280	7590	03/15/2005	EXAMINER	
MOTOROLA INC 600 NORTH US HIGHWAY 45 ROOM AS437 LIBERTYVILLE, IL 60048-5343			PHU, SANH D	
			ART UNIT	PAPER NUMBER
			2682	

DATE MAILED: 03/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/683,760	<b>Applicant(s)</b> BI, HAO	
	<b>Examiner</b> Sanh D Phu	<b>Art Unit</b> 2682	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 10 October 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

**DETAILED ACTION**

***Information Disclosure Statement***

1. The IDS filed 10/10/2003 has been considered and recorded in the file.

***Claim Rejections – 35 USC § 101***

2. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 1–9 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non–statutory subject matter.

Claims 1–6 are directed to a message; and claims 7–9 directed to a table. These claims do not fall within any of the four statutory classes of 35 U.S.C 101.

***Claim Rejections – 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

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(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1 and 7 is rejected under 35 U.S.C. 102(b) as being anticipated by Drake, Jr. et al (5,461,611).

Regarding to claims 1 and 7, see figure 3 and col. 9, line 52 to col. 10, line 8, Drake, Jr. et al discloses a message/table comprising:

a service identifier (50–54) for identifying a label for broadcast content on an associated broadcast channel; and

quality indicator information (55, 56) for indicating at least one value for a measure of quality for the associated broadcast channel.

5. Claims 1–9 and 24–27 are rejected under 35 U.S.C. 102(b) as being anticipated by Rappaport et al (20040259555).

Regarding to claims 1 and 7, see figure 9 and sections [0091–0094] and [0097], Rappaport et al discloses a message/table comprising:

a service identifier (802–804) for identifying a label for broadcast content on an associated broadcast channel; and

quality indicator information (801, 805) for indicating at least one value for a measure of quality for the associated broadcast channel.

Regarding to claims 2, 5 and 9, Rappaport et al discloses that the quality indicator comprises a signal-to-noise ratio value (threshold) (SNR) (see figure 9).

Regarding to claims 3 and 6, Rappaport et al disclose that the quality indicator comprises a minimum signal-to-noise ratio value (=4.3) (see figure 9).

Regarding to claim 4, Rappaport et al disclose that the quality indicator can comprise a ratio (SIR) (see section [0032]).

Regarding to claim 8, Rappaport et al discloses that the quality indicator can comprise a SNR and a ratio (SIR) (see section [0032]).

Regarding to claim 24, see see figure 9 and sections [0091–0094] and [0097], Rappaport et al discloses a wireless communication device “mobile device” (see section [0097]) wherein the wireless communication device comprises:

a transceiver (inherently included, e.g. in a case the wireless communication device is cellular telephone (see section [0005]);

a controller “operating system” coupled to the transceiver (the controller inherently included, e.g. in a case the wireless communication device is cellular telephone) (see also section [0097]);

a user interface couple to the controller, (the user interface controller inherently included, e.g. in a case the wireless communication device is cellular telephone);

a memory coupled to the controller, for storing a quality table (see figure 9) mapping a service identifier (802, 803) to a quality indicator (801, 805) (see also section [0097]).

Regarding to claims 25 and 27, Rappaport et al discloses that the quality indicator comprises a signal-to-noise ratio value (threshold) (801) (see figure 9).

Regarding to claim 26, Rappaport et al discloses that the quality indicator can comprise a ratio (SIR) (see section [0032]).

***Claim Rejections – 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 2–6 and 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Drake, Jr. et al.

Regarding to claims 2, 5 and 9, Drake, Jr. et al does not disclose whether the quality indicator information comprises a signal-to-noise ratio value (threshold). However, using signal strengths, signal-to-noise ratio values, etc.,

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to indicate a transmission quality of a channel is well-known in the art, and the examiner takes Official Notice.

It would have been obvious for a person skilled in the art, within his skills and upon system requirement or upon his design preference, to implement Drake, Jr. et al in such a way that the quality indicator information would also comprise signal-to-noise ratio values in order to indicate the transmission quality of the broadcast channel, without affecting the overall system performance.

Regarding to claims 3 and 6, as applied in claim 2, said signal-to-noise ratio value could be a minimum acceptable quality (see (56) of figure 3).

Regarding to claim 4, Drake, Jr. et al discloses that the quality indicator information comprises a ratio (see col. 5, lines 53-58).

-Claim 8 is rejected with similar reasons set forth for claims 2 and 4.

8. Claims 10-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al (20040047323) in view of Drake, Jr. et al.

Regarding to claim 10, see figures 1-3 and sections [0018-0035], Park et al discloses a method comprising:

step (100) (see figure 1) of measuring a quality indicator to form a calculated quality indicator “signal strength” of a broadcast channel of a plurality of broadcast channels (see (S100) of figure 3);

step (100) of comparing said calculated quality indicator to a quality indicator threshold “reference value” (see (S104) of figure 3).

Park et al does not disclose steps of receiving a service parameter message, and determining quality indicator threshold, as claimed.

Drake, Jr. et al discloses steps (20) (see figure 1) of receiving from a remote station (10) a service parameter message (see figure 3) with a service identifier (50–53) associated with a broadcast channel; and determining a quality indicator threshold (55, 56) from the service parameter message for a further use (see figures 1–3 and col. 4, line 17 to col. 10, line 18).

Since Park et al is silent about how the quality indicator threshold is obtained, and each broadcast channel of the plurality of broadcast channels (e.g., (WLAN\_3, WLAN\_5) (see figure 2) may have its own required quality indicator threshold, it would have been obvious for a person skilled in the art, within his skills, and upon the system requirement or his design preference, to

implement steps of receiving from a broadcast station or a remote associated station a service parameter message with a service identifier associated with the broadcast channel for a further use; and determining the quality indicator threshold required for the broadcast channel from the service parameter message, as taught by Drake, Jr. et al, so that the quality indicator threshold would be obtained for comparing with the calculated quality indicator, without affecting the overall system performance.

Regarding to claim 11, Park et al in view of Drake, Jr. et al teaches step (25) of extracting quality indicator threshold from the service parameter (see Drake, Jr. et al, col. 8, lines 43–62).

Regarding to claims 12 and 15, Park et al in view of Drake, Jr. et al does not disclose obtaining a signal to noise ratio value (threshold) and an associated signal ratio.

Obtaining signal strengths, signal-to-noise ratio values, other associated signal ratios, etc., to indicate a transmission quality of a channel is well-known in the art, and the examiner takes Official Notice.

It would have been obvious for a person skilled in the art, within his skills and upon system requirement or upon his design preference, to implement Park et al in view of Drake, Jr. et al in such a way that the system also obtain signal-to-noise ratio values and associated signal ratios in order to indicate the transmission quality of the broadcast channel, without affecting the overall system performance.

Regarding to claim 13, Park et al in view of Drake, Jr. et al does not disclose step of measuring a pilot signal to noise ratio to form a calculated quality indicator by multiplying the pilot signal to noise ratio by a factor and an associated signal ratio. However, measuring a pilot signal to noise ratio to form a calculated quality indicator by multiplying a pilot signal to noise ratio by a factor and an associated signal ratio is a conventional way for measuring a transmission quality, and the examiner takes Official Notice. Therefore, for an application, it would have been obvious for a person skilled in the art to implement Park et al system in view of Drake Jr. et al, within his skills and upon the system requirement or his design preference, an additional step of measuring a pilot signal to noise ratio to form a calculated quality indicator by

multiplying a pilot signal to noise ratio by a factor and an associated signal ratio in order to obtain an additional transmission quality, without affecting the system performance.

Regarding to claim 14, as applied to claim 13, Park et al system in view of Drake, Jr. et al is capable of performing step of determining if the calculated quality indicator is less than the signal to noise ratio threshold (see Park et al, (S104) of figure 3).

Regarding to claim 16, Park et al in view of Drake, Jr. et al does not disclose step of measuring a pilot signal to noise ratio to form a calculated quality indicator. However, measuring a pilot signal to noise ratio to form a calculated quality indicator is well known in the art, and the examiner takes Official Notice. Therefore, for an application, it would have been obvious for a person skilled in the art to implement Park et al system in view of Drake Jr. et al, within his skills and upon the system requirement or his design preference, an additional step of measuring a pilot signal to noise ratio to form a calculated quality indicator in order to obtain an additional transmission quality, without affecting the system performance.

Regarding to claim 17, as applied to claim 16, Park et al system in view of Drake, Jr. et al is capable of performing step of determining if the calculated quality indicator is greater than the signal to noise ratio threshold (see Park et al, (S104) of figure 3).

Regarding to claim 18, as applied to claim to claim 10, Park et al system in view of Drake, Jr. et al is capable of obtaining the quality indicator threshold, associated with the service identifier, from a table in a memory after the quality indicator threshold being received in the service parameter message and stored for a later use (see Park et al, section [0038]).

–Claims 19 and 20 are rejected with similar reasons set forth for claims 12 and 15.

9. Claims 21–23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park et al in view of Drake, Jr. et al, and further in view of Jollota et al (2004/0142699).

Regarding to claim 21, Park et al in view of Drake, Jr. et al does not disclose step of presenting a result of the comparing step in a user interface.

Jollota et al discloses step of presenting a results of step of comparing a measured transmission quality with a threshold in a user interface (see figure 4A-4F, and sections [0033-0043]).

It would have been obvious for a person skilled in the art to implement Park et al system in view of Drake, Jr. et al with step of presenting a results of step of comparing a measured transmission quality with a threshold in a user interface, as taught by Jollota et al, so that the user is able to view, analyze and make decisions on the presented results.

Regarding to claim 22, as applied for claim 21, Park et al system in view of Drake, Jr. et al and Jollota et al is capable of displaying a label (465, 466) associated with the service identifier; and displaying an indicator (470) indicating whether the calculated quality indicator is less than the quality indicator threshold (see Jollota et al, figure 4E).

Regarding to claim 23, as applied for claim 21, Park et al system in view of Drake, Jr. et al and Jollota et al is capable of displaying an indicator (470) indicating whether the calculated quality indicator is greater than the quality indicator threshold (see Jollota et al, figure 4E).

*Conclusion*

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sanh D Phu whose telephone number is (703) 305-8635. The examiner can normally be reached on 8:00-16:30.

The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-8635.

Sanh D. Phu  
Examiner  
Art Unit 2682



VIVIAN CHIN  
SUPERVISORY PATENT EXAMINER  
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SP